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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,249	10/29/2001	Ravi Prasad	10010449-1	9081

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EXAMINER

KALAFUT, STEPHEN J

ART UNIT

PAPER NUMBER

1745

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/000,249

Applicant(s)

PRASAD ET AL.

Examiner

Stephen J. Kalafut

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32-39 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 9-18, 22-28, 30, 31 and 40-53 is/are rejected.
- 7) ☒ Claim(s) 3-8, 19-22 and 29 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date (3 dates).
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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Claims 50-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims recite that the keying element is indicative of various aspects of the fuel in the fuel supply, but do not point out any particular structure. The types of shapes would be encompassed by these claims appear to be arbitrary.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 9-18, 24-28, 30, 40-47 and 49-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Childers (US 6,116,723), cited by applicants.

Because the present device is claimed *per se*, the intended use of the overall device and sections thereof are not given patentable weight. For example, a "fuel storage area" will be understood as an area which may store liquid, regardless of its intended use. Childers discloses a container (12) which includes a liquid reservoir (34), an outlet (36) for the liquid, an area (28) surrounding the reservoir, into which a gas may be fed via an inlet (26). Although not intended to contain the same fluids as the present device, the structure is the same as that claimed. The

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reservoir (34) is a collapsible bag (column 2, lines 48-52), which is thus a movable barrier. As gas is fed into the area (28) surrounding the bag (34), its volume increases as that of the bag decreases. The bag surrounds the volume in which a liquid is contained. Claims 9-18 recite various types of intended contained fluids, which recitations are only toward intended use, thus not distinguishing over Childers. Both the inlet (36) and the outlet (26) include self-sealing fluidic couplers (70), each including a septum, while the inlet also includes a sealing ball biased by a spring (figure 3). The device may also include a keying element (figure 7B) including an upstanding tab, as well as an asymmetrical arrangement for the inlet and the outlet. The tab would be asymmetrical to the inlet and outlet, which are asymmetrical to each other. Childers also states that his device may be used with ink jet printers (column 6, lines 33-36), an electronic device. The inlet, outlet and tab are located on the same "leading" end of the device. Since claims 50-52 recite the purpose of the keying element, but not its structure, the tab disclosed by Childers would meet these claims, to the extent that they are understood.

Claims 40, 42, 44-47 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki (US 5,216,452).

Because the present device is claimed *per se*, the intended use of the overall device and sections thereof are not given patentable weight. Suzuki discloses a storage device (2) for a plurality of liquids, in which each liquid is contained in a flexible pouch (8). The device also includes inlet or outlet means for each liquid, including a self-sealing septum (5), which may be pierced by a needle (4). As seen in figure 1, three of these inlet or outlet means, which would

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also be keying elements, are located on one "leading" end of the device, in an arrangement which is asymmetrical from left to right.

Claims 1, 9-18 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by either Fishman (US 3,940,031) or Celorier *et al.*

Because the present device is claimed *per se*, the intended use of the overall device and sections thereof are not given patentable weight. Fishman discloses a tank (10), which is divided into sections by a movable piston (16) and diaphragm (14). Thus, as fluid enters one side, the volume of that side expands while the volume of the other side contracts. One side includes an outlet (26), while the other includes an inlet (24). Although not intended to contain the same fluids as the present device, the structure is the same as that claimed. Claims 9-18 recite various types of intended contained fluids, which recitations are only toward intended use, thus not distinguishing over Fishman.

Celorier *et al.* disclose a tank (100), which is divided into sections (103, 106) by a diaphragm (107). As fluid enters one side, the volume of that side expands while the volume of the other side contracts. One side includes an outlet (105), while the other includes an inlet (102). Although not intended to contain the same fluids as the present device, the structure is the same as that claimed. Claims 9-18 recite various types of intended contained fluids, which recitations are only toward intended use, thus not distinguishing over Celorier *et al.*

Claims 1, 2, 9-18 and 30 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Spry *et al.* (US 6,260,544).

Spry *et al.* disclose a tank (12), which includes a fuel reservoir surrounded by a bladder (14), an outlet (16) for the fuel, an area (74) surrounding the reservoir, into which air may be fed via an inlet (78). See figure 1. As air enters the space (74) surrounding the reservoir, the volume of that space expands while the volume of the fuel bladder contracts. Although not intended to contain the same fluids as the present device, the structure is the same as that claimed. Claims 9-18 recite various types of intended contained fluids, which recitations are only toward intended use, thus not distinguishing over Spry *et al.* Because the present device is claimed *per se*, the intended use of the overall device and sections thereof are not given patentable weight.

Claims 1, 2, 9-18 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Ellsworth (US 6,360,729).

Ellsworth discloses a tank (12), which includes a fuel reservoir (25) surrounded by a bladder (18), an outlet (22) for the fuel, an area (36) surrounding the reservoir, into which air may be fed via an inlet (38). See figure 1. As air enters the space (36) surrounding the reservoir, the volume of that space expands while the volume of the fuel bladder contracts. Although not intended to contain the same fluids as the present device, the structure is the same as that claimed. Claims 9-18 recite various types of intended contained fluids, which recitations are only toward intended use, thus not distinguishing over Ellsworth. Because the present device is claimed *per se*, the intended use of the overall device and sections thereof are not given patentable weight.

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Claims 1, 9-18, 22, 30 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Faris *et al.* (US 6,558,825).

Faris *et al.* discloses a fuel cell (12) which uses fuel fed from a reservoir (14), which is divided into two sections (18a, 18b) by a movable wall (22) and a sealing assembly (24). Each of the two sections includes a respective port (20a, 20b) which may serve as inlet or outlet. As exhausted fuel enters one chamber, the wall moves to expand its volume, thus reducing the volume of the other chamber, expelling fresh fuel to the fuel cell (column 8, lines 7-36). These would correspond to the variable "bounded" volumes of claim 31, while the overall volume of the reservoir does not change. The wall may be moved by a positive pressure device, such as a piston (column 43-45). While the fuel cell of Faris *et al.* uses metal as its fuel, the reservoir when seen *per se*, may be seen as able to contain any type of fuel or exhaust product, including those implied by claims 9-18.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Faris *et al.*

This claim differs from Faris *et al.* by reciting a spring as the positive pressure device. While Faris *et al.* do not specifically mention springs, they teach that their examples (piston, screwdrive) are not limiting to those of ordinary skill in the art (column 8, lines 45-48). For this

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reason, it would be obvious for the ordinary artisan to select an appropriate means for moving the wall disclosed by Faris *et al.*

Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Childers or Suzuki (both above), each in view of Basa (US 3,782,598).

This claim differs from Childers and Suzuki by reciting a handle on the liquid container. Basa discloses a dispensing device including handles (402, 500) which enable it to be used and transported, and which are located away from the outlet (404) for the dispensed material. To facilitate the use and transporting of the liquid containers of Childers or Suzuki, it would be obvious to modify them to include a handle as shown by Basa.

Claims 32-39 are allowed. The prior art does not disclose a fuel supply including a fuel outlet, a fuel storage area, a waste inlet, a waste storage area, a movable barrier between the two storage areas, and a catalyst in communication with the fuel storage area.

Claims 3-9, 19-21 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art also does not disclose a fuel supply including a fuel outlet, a fuel storage area, a waste inlet, a waste storage area, a movable barrier between the two storage areas, and either flexible bags around both storage areas, a waste absorbing material in the waste storage area, or a catalyst coupled to the fuel storage area.

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The disclosure is objected to because of the following informalities: On page 14, line 7, the waste storage area is numbered 136, while being numbered 126 elsewhere. The numeral 136 does not appear in the drawings. Appropriate correction is required.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Redmond (US 2004/0023087) discloses a hydrogen storage cassette for a fuel cell, which includes keying elements (figures 4A, 4B), but is filed too recently to be available.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Kalafut whose telephone number is 571-272-1286. The examiner can normally be reached on Mon-Fri 8:00 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sjk

STEPHEN KALAFUT
PRIMARY EXAMINER
GROUP 1706

